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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 10, 1946

(Eleventh Cotton Insect Survey Report for 1946)

Boll weevils are very abundant in most of the cotton fields of the Carolinas, Georgia, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma, and the eastern half of Texas. There are some notable exceptions, as in some of the northern counties of Arkansas and Mississippi and in the Lower Rio Grande Valley of Texas. Most of the cotton in the southern half of the Cotton Belt and in the Carolinas has passed the peak of fruiting and the weevil damage to bolls is now more serious than to squares. The bolls will continue to be punctured until they are 30 to 40 days old and well hardened, unless the weevils are controlled. The ground is now so well shaded by the plants that climatic control of the weevils can not be depended upon during the remainder of the season. If the bolls are to be saved the plants must be dusted with calcium arsenate.

Cotton leafworms are now abundant and causing serious damage over large areas of Texas, Oklahoma, Arkansas, Louisiana and Mississippi. They have reached Alabama, New Mexico and Arizona.

The bollworm appears to be more serious as a cotton pest than during any recent year. The damage is reported as most serious in central Texas, but is serious in several other states. DDT dust is recommended, but cryolite and calcium arsenate and other arsenical insecticides will give considerable protection when applied promptly and properly.

BOLL WEEVIL

TEXAS: Continued dry, hot weather throughout the state has reduced weevil infestation in many areas and cotton is maturing rapidly. Most of the cotton is now blooming in the top of the plants, or has ceased blooming. The average weevil infestation in 293 fields in 52 counties was 36% as compared to 40% the previous week. No infestation was found in 14% of the fields. In 18% of the fields the infestation was less than 10%; in 16% of the fields it was from 10% to 25%; in 18% of the fields it was from 25% to 50%; and in 34% of the fields more than 50% of the squares were punctured. The greatest weevil damage is being caused to late squares and young bolls in the eastern part of the state, while little or no damage is being caused in the western half.

OKLAHOMA: Continued hot, dry weather decreased boll weevil activity to some extent, but infestations are still high in the eastern two-thirds of the state, especially in bottom land fields which have not been poisoned. High infestations of 95% punctured squares were reported in Lincoln County, 93% in Tulsa, 88% in Cleveland, 86% in Stephens, 86% in Murray, and 82% in Garvin County, respectively. The average weevil infestation in 139 fields in 16 counties was 32%, the same as the previous week. No infestation was found in 2% of the fields. In 23% of the fields the infestation was less than 10%; in 25% of the fields it was from 10% to 25%; in 25% of the fields it was from 25% to 50%; and in 25% of the fields more than 50% of the squares were punctured.

LOUISIANA: Weather conditions continued favorable for weevils throughout the state and the weevil situation remains critical. The average infestation in 87 fields was 73%. The infestation was from 10 to 25% in 5% of the fields, from 25 to 50% in 11% of the fields, and more than 50% of the squares were punctured in 84% of the fields.

ARKANSAS: The average infestation in 62 fields in Arkansas was 41%. In 5% of the fields no weevils were found. In 11% of the fields the infestation was less than 10%; in 20% of the fields it was from 10% to 25%; in 32% of the fields it was from 25% to 50%; and in 32% of the fields more than 50% of the squares were punctured.

MISSISSIPPI: Weevil infestation continued to increase in most areas of the state. Showers and wet fields interfered with poisoning operations in some areas. Some growers are poisoning for boll weevil control, some for leafworm control, and others are arranging their schedules to control both insects in one operation. According to reports, there are no shortages of calcium arsenate and paris green, but calcium arsenate-nicotine mixtures are still tight.

The average weevil infestation for the state on infested farms was 48%, as compared to 37% the previous week. The average infestation in 139 fields in 13 Delta counties was 39% and in 115 infested fields was 47%. No infestation was found in 24 of the fields examined. In 30 fields the infestation was less than 10%; in 16 fields it was from 10 to 25%; in 17 fields it was from 25 to 50%; and in 52 fields more than 50% of the squares were punctured. A large planting company in Bolivar County reported weevils in all of 166 fields examined, with an average of 23% infestation. In 9 of the fields the infestation was less than 10%; in 105 fields it was from 10 to 25%; in 49 fields it was 25 to 50%; and in 3 fields more than 50% of the squares were punctured.

ALABAMA: W. A. Ruffin, Extension Entomologist, wired August 12: "Had three clear days last week. Rain again Saturday. Boll weevils continue to take heavy toll of cotton crop. Cotton aphids serious. Have no calcium arsenate-nicotine mixture. Cotton leafworm reported Hale County."

GEORGIA: In the southern half of the state cotton has matured to such an extent that no further records of weevil injury will be made. Much of the cotton in this area is now opening. Weevil damage has been high on unpoisoned cotton and a large amount of boll damage is now showing up as the cotton opens. In the central part of the state cotton is commencing to open. In the examination of 69 fields, mostly in the northern half of the state, all were found to be infested with weevils. The highest infestations reported were in Talbot, Hart, Elbert, and Meriwether Counties. The lowest infestations were found in Habersham, Dawson, Forsyth and Lincoln Counties. Only 6 of the 69 fields examined had less than 10% of the squares punctured; 30 fields had between 10% and 20% punctured squares; 16 fields between 20% and 30%; 8 fields between 30 and 50%; and 9 fields had more than 50% infestation.

SOUTH CAROLINA: The continued rains and mild temperatures have caused excessive rank growth of the cotton plants and the crop is maturing slowly. General boll weevil migration is now underway with enormous numbers present in practically all fields. The square infestation has reached the saturation level in most all areas, and there are more boll weevils in the fields now than at any time since 1941 and probably more than at any time since 1927. The numbers of weevils are increasing rapidly on account of the continued fruiting of the cotton. It appears that more damage will be done to the cotton crop by injury to bolls than has been caused by attacks on squares. Many half-grown bolls are now receiving numerous weevil punctures. The average weevil infestation in 141 fields in 19 southern and coastal plains counties was 76%. In 13 of these fields the infestation was from 25 to 50%, and in 128 fields more than 50% of the squares were punctured. None of the fields examined had less than 25% punctured squares.

NORTH CAROLINA: Mild temperatures and rains over the cotton areas were favorable for weevils and infestations increased. In 100 fields examined in 15 southern and eastern coastal plains counties 99 of the fields were infested with an average of 61% of the squares punctured. The infestation in Edgecombe, Hertford, Halifax, and Northhampton Counties is still not excessive but with migration underway infestation in these counties may be expected to increase rapidly.

COTTON LEAFWORM

TEXAS: Cotton leafworms are now present in all cotton producing areas of the State. Populations are building up in the northern and western areas and spot dusting for their control is reported as far north as the Oklahoma line. Cotton is maturing rapidly and it is questionable as to just how much longer the cotton will be attractive to leafworms.

OKLAHOMA: Leafworms were reported in Love, Marshall, Muskogee, Okfuskee, and Lincoln Counties indicating that they are generally distributed over the eastern half of the State. The worms were present in sufficient numbers in Love and Marshall Counties to cause ragging of the plants in many fields.

LOUISIANA: Leafworms are present in large numbers in all of the principal cotton areas of the State and much poisoning is being done for their control. Worms of all sizes, together with pupae, are generally reported in the infested fields.

ARKANSAS: The leafworm situation continued serious and many fields in the southern part of the State have been poisoned for their control. Worms have reached the pupal stage in many fields. The supplies of insecticides were greatly reduced during the week and the situation may become critical if leafworms continue to develop and spread.

MISSISSIPPI: The cotton leafworm is reported to be generally distributed over the northwest quarter of the State but they are not present in sufficient numbers in some areas to justify poisoning for their control.

ALABAMA: On August 12, W. A. Ruffin wired "Cotton leafworm reported in Hale County." Hale County is in the east central part of the State.

BOLLWORM

TEXAS: Bollworm damage continues to be serious in the central part of the State.

OKLAHOMA: Spotted, light to heavy bollworm damage is reported from most sections of the State.

LOUISIANA: Bollworm damage continued serious in the northwestern part of State. Many growers have used 5% DDT for their control with good results when the worms were dusted in the early stages.

MISSISSIPPI: Bollworms were reported in a number of fields in the Delta section, but the worms do not appear to be increasing in numbers.

ARIZONA: Several thousand acres of cotton have been dusted with a 5% DDT-sulfur mixture for bollworm control in the Santa Cruz Valley south of Tucson. The growers were not able to make all applications at the proper time on account of a shortage of the insecticide.

COTTON APHID

Cotton aphids are reported from all areas but serious damage has occurred in Alabama and Texas, especially in fields that have been dusted with calcium arsenate for weevil control.

RED SPIDER

Red spider damage serious in Dawson and parts of Howard and Martin Counties, Texas. Several thousand acres of cotton have been dusted with sulfur for their control.

INSECTS OF IRRIGATED COTTON OF THE SOUTHWEST

ARIZONA:

Hemipterous insect populations continued to increase in the principal cotton areas of the State, and much dusting is being done for their control.

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August 14, 1946

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